

Paper 3 – Fieldwork



Systematic e.g. every 10m or every 5th person

Types of sampling

Stratified sampling – splitting the population is split into sub groups. E.g. most people in Sheffield are of working age, so we asked more working aged people our questionnaire questions

Random sampling e.g. selecting pebbles, or people to ask in the city centre



What did you study?

One urban fieldwork to Sheffield
One river landscape fieldwork to Burbage Brook

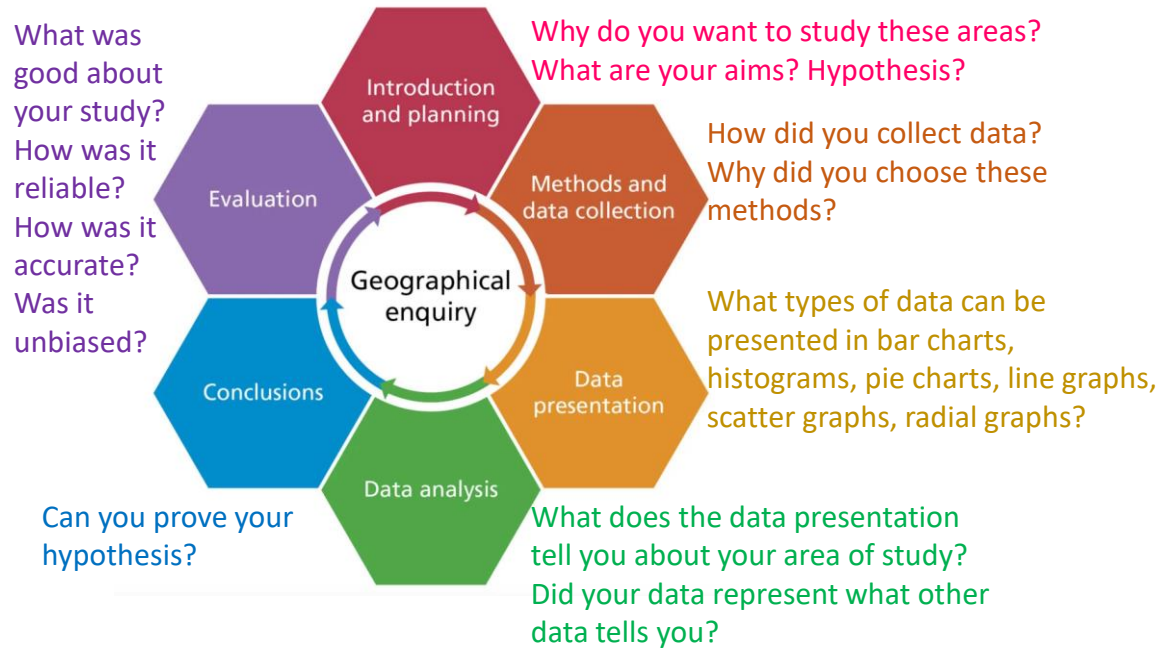
Aims of the fieldwork

- Urban fieldwork to Sheffield
- To assess the sustainability of Sheffield
 - To assess the view that regeneration has improved the quality of life.

Aims of the fieldwork

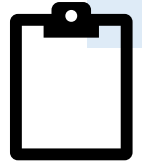
- River landscape fieldwork to Burbage Brook
- To assess the Bradshaw Model (that a river changes as you move downstream – faster, deeper, wider, smaller sediment)

The fieldwork section of your exam asks you to draw on your own fieldwork and fieldwork that others have completed (unseen fieldwork).
In 2022 – it is just the unseen section



Urban fieldwork: what data did you collect?

- Environmental quality survey
 - Questionnaire
 - Field sketch
 - Land use survey
- Secondary data
- Population statistics
 - Information about sustainable housing projects



Urban fieldwork: How did you collect the data?

- Scale of quality of the environment – qualitative
- Asking people's opinions on whether the area has been improved through regeneration through open questions – qualitative
Asking peoples opinions on whether the area has been improved through regeneration using closed questions – quantitative
- Observing and recording key features of the area using what you perceive as important – qualitative
- Tallying the frequency of different land use – quantitative



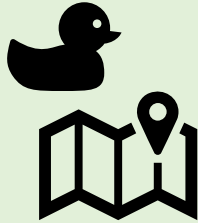
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Physical fieldwork: what data did you collect?

1. Field sketch
2. Velocity
3. Width and depth (cross sectional area = width x average depth)
4. Valley profile
5. Flood risk
6. Sediment shape
7. Sediment size

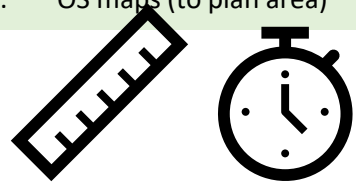
Secondary data:

1. Flood risk maps
2. OS maps (to plan area)



Physical fieldwork: How did you collect the data?

1. Observing and recording key features of the area using what you perceive as important – qualitative
2. Dropping a float and timing how long it took to travel 10m along a transect at each site (left, middle and right of the stream) – quantitative
3. Using a tape measure and measuring tape to measure the depth and width and calculating cross sectional area – quantitative
4. Using a clinometer and ranging pole to assess the gradient of the valley – quantitative
5. Observing features that would increase the risk, noting it down – qualitative
6. Observing and plotting onto the powers roundness scale – qual
7. Measuring using a calliper or ruler the width of the rock



Line graphs

Both axes are numerical and continuous i.e. each data point could be any value along the scale.

If time is one of the variables, always plot it on the x-axis.

Scatter graphs

This needs one independent variable (on x-axis) and one dependent variable (on y-axis).

Both axes must show ordinal data.

Do not join up each point: use a line of best fit instead, if appropriate.

Pie charts

A pie chart is a circle divided into sectors

Each sector represents a percentage.

Sectors can be shaded or coloured, and need labels or a key

Multiple pie charts can be used where the size of each circle shows ratio



Histograms

Histograms are used to show the numbers of things (or frequency) along a continuous scale

Plot the sliding scale on the x-axis

Do not leave gaps between the bars as data are continuous data

Conclusions quote data from the graphs and charts made, they link to your hypothesis (did it meet the aims?)

Evaluation

How *accurate* were your results?

What were the *sources of error*?

How has each source of error affected your results?
Error: the difference between the result that you found and the true value

Fieldwork technique	Questionnaires were given out to every 5 th person seen in the High Street on Sunday morning
Bad evaluation	It rained heavily when I gave out my questionnaire
Good evaluation	It was raining heavily when I gave out questionnaires so there were fewer people in the High Street except for rough sleepers. My sample was biased because shoppers were underrepresented. Therefore the results of the questionnaire survey may not be accurate



Key words:



Hypothesis – a statement you can test e.g. River velocity increases as distance increases from the source of Burbage Brook

Sampling – the process of measuring a small number of sites or people in order to obtain a perspective on all sites and people.

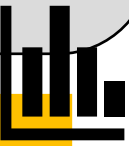
Quantitative data records quantities (e.g. numbers, sizes, frequencies).

Qualitative data records subjective qualities (e.g. opinions and attitudes).

Discrete data can only take certain values (e.g. whole numbers)

Continuous data can take any value (e.g. length, width, time)

Accuracy: how close a measurement is to the true value



Percentage bar charts

Percentage bar charts are used to show the percentage of each subdivision in several categories. It is a type of compound bar chart.

Plot the categories on the x-axis

Leave gaps between the bars as data are discrete data

Use colours or shading to show the subdivided categories, and include a key

Each bar should be the same height (i.e. 100%)

Presenting data